

IN THE SPECIFICATION

Please replace the paragraph at page 6, lines 5-13, with the following rewritten paragraph:

The column ~~13~~ 15 is provided with a processing head 31 and the processing head 31 is movable in a Z-axis direction by means of drive of a Z-axis servo-motor 33. Moreover, the processing head 31 is provided with a first holder 39 for supporting a hard molded electrode 37 and, in the vicinity of the first holder 39 in the processing head 31, a second holder 43 for supporting a hard electrode 41 having exhaustion resistance is provided. The first holder 39 and the second holder 43 are electrically connected to the electric power source 29.

Please replace the paragraph at page 13, lines 11-17, with the following rewritten paragraph:

Moreover, because oxidation resistance ~~and~~ of the turbine rotor blade 1 after the repair can be improved, the quality of the turbine rotor blade 1 after the repair can be improved. In particular, in the case where the peening step is added after finishing the (1-6) hard thin film step, the fatigue strength of the deposition 47 can be increased and hence the quality of the turbine rotor blade 1 after the repair can be further improved.

Please replace the paragraph at page 15, lines 13-25, with the following rewritten paragraph:

After finishing the (2-1) removal step, by means of driving the X-axis servo-motor 19 and the Y-axis servo-motor 21, the table 17 is moved in the X-axis direction and the Y-axis direction to position the original turbine rotor blade 1A so that the removed portion 5e of the blade 5 is opposed to the molded electrode 35. Further, a pulsing electric discharge is generated between the removed portion 5e of the blade 5 and the molded electrode 35 in an

electrically insulating liquid S. Thereby, as shown in Fig. 3B 4(b), by means of energy of the electric discharge, a material of the molded electrode 35 or a reaction substance of the material carries out deposition, diffusion and/or welding at the removed portion 5e of the blade 5 and thereby a porous thin film 45 can be gradually formed at the removed portion 5e of the blade 5.

Please replace the paragraph at page 19, lines 2-8, with the following rewritten paragraph:

Moreover, because oxidation resistance ~~and~~ of the restored turbine rotor blade 1B can be improved, the quality of the restored turbine rotor blade 1B can be improved. In particular, in the case where the peening step is added after finishing the (2-6) hard thin film step, the fatigue strength of the deposition 47 can be increased and hence the quality of the restored turbine rotor blade 1B can be further improved.

Please replace the paragraph at page 23, lines 18-22, with the following rewritten paragraph:

More specifically, the ~~(3-1)~~ (3-2) thin film step and the ~~(3-2)~~ (3-3) thin film modification step can be omitted from the series of the steps in the ~~repair~~ production method of the machine component in accordance with the third embodiment or the (3-6) hard thin film step can be omitted.

Please replace the paragraph at page 27, lines 6-10, with the following rewritten paragraph:

Meanwhile, the abrasion surfaces 97f are easy to have defects (see Fig. ~~15A~~ 16(a)) such as cracks caused by abrasion with another abrasion surfaces 97f of the adjacent turbine

rotor blade 89' and the pair of the abrasion surfaces 97f in the shroud 97 serve as portions to be treated.

Please replace the paragraph beginning at page 31, line 37 to page 32, line 6, with the following rewritten paragraph:

After finishing the (4-3) finish step, the turbine rotor blade 89 is once detached from the jig 121 and the turbine rotor blade 89 is set at the jig 121 so as to direct the other of the abrasion surfaces 97f in the shroud 97 upward. Then, the steps from the ~~(4-2)~~ (4-1) removal step to the (4-3) finish step are repeated similarly to the above description and then the repair of the pair of the abrasion surfaces 97f in the shroud 97 is finished.

Please replace the paragraph at page 33, lines 31-34, with the following rewritten paragraph:

A production method of a restored machine component in accordance with a fifth embodiment will be described hereinafter with reference to Fig. 2, from Fig. 13 through Fig. 15, Fig. 16(a), Fig. 16(b), Fig. 16(c), Fig. 17(a), and Fig. 17(b), ~~Fig. 17C~~.

Please replace the paragraph at page 35, lines 23-30, with the following rewritten paragraph:

After finishing the (5-3) finish step, the original turbine rotor blade 89A is once detached from the jig 121 and the original turbine rotor blade 89A is set at the jig 121 so as to direct the other of the abrasion surfaces 97f in the shroud 97 upward. Then, the steps from the ~~(5-2)~~ (5-1) removal step to the (5-3) finish step are repeated similarly to the above description and then the production of the restored turbine rotor blade 89B as the restored machine component is finished.

Please delete the last two paragraphs at page 37, lines 7-17 in their entirety and insert therefor the following new placement paragraphs:

As described above, the invention has been described above by reference to several preferable embodiments, however, the scope and the right of the appended claims should not be limited to these embodiments.

Moreover, the contents of the contents of Japanese Patent Applications No. 2003-167074, No. 2003-167073 and No. 2003-167076, filed with the Japan Patent Office on June 11, 2003, are incorporated herein by reference in their entirety.